Neutral Tandem Presentation
to the Federal Communications Commission

NEUTRAL TANDEM™

April 17, 2007

Neutral Tandem Overview

What we do:

- **Provide a neutral interconnection point for carriers to exchange traffic.**
  - Independent from ILEC facilities
  - Completely redundant power and transport in and out of our tandem locations
  - Saves carriers millions of dollars
- **Strengthen the PSTN with Redundant tandem switching and transport.**
  - Hurricane Katrina, 9/11, etc..
- **Connect to over 643 competitive carrier switches in 38 markets.**
- **Services used by over 60 major competitive carriers, including**:
  - Wireless → Sprint Nextel, T-Mobile, Cingular, US Cellular, Metro PCS…
  - Wireline → AT&T, Verizon Business, McLeod, Level 3, XO…
  - Cable → Cox, Cablevision, Comcast, RCN…
  - VoIP → Vonage, Broadvox, Reynwood, Voex…

Public Interest Benefits of Tandem Diversity: Network Reliability

- **Chairman Martin:**

  "When I first became Chairman, I identified public safety and emergency preparedness as another top priority. As memories of Hurricane Katrina and 9/11 continually remind us, one of our most important objectives is to ensure that basic public safety requirements are met."

  (Senate Testimony, Sept. 12, 2006).

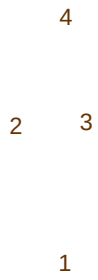
- **Commissioner Tate:**

  "In March 2006, at the second meeting of the FCC Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks in Mississippi, I heard personal accounts of the devastation. The one clear message I heard was the need for redundancy in communications networks."

  (Senate Testimony, Feb. 1, 2007).

Restoring Tandem Redundancy

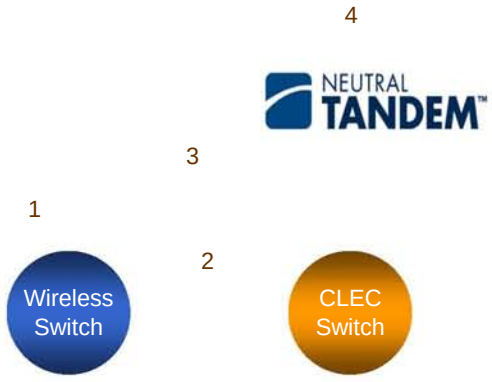
Legacy ILEC Prior to Competition



Legacy ILEC With Competitive Carriers

LEC With Introduction of Neutral Tandem

Neutral Tandem's Additional Capacity/Routes



Local Transit in New York via Verizon

1a

Tandem

1b

1c

Verizon charges $.001621 per min.
and charges $.01029 per call

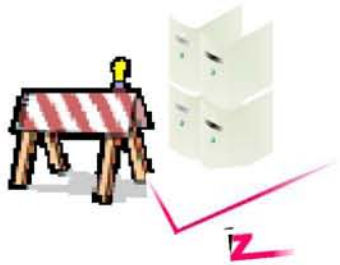
Sprint may charge Cablevision recip. comp.

1a Cablevision routes call to Sprint via Verizon's tandem transit service

1b Verizon routes transit call to Sprint for completion

1c Verizon bills Cablevision for transit and Sprint may bill Cablevision for recip. comp.

Transit in New York via Neutral Tandem



Tandem

NT charges $.0015 per min.
and $.0040 per call

Sprint may charge Cablevision recip. comp.

1a Cablevision routes call to Sprint via Neutral Tandem's transit service

1b Neutral Tandem routes transit call to Sprint for completion

1c NT bills Cablevision for transit and Sprint may bill Cablevision for recip. comp.

Homeland Security Benefit:
Tandem Redundancy

Before Neutral Tandem

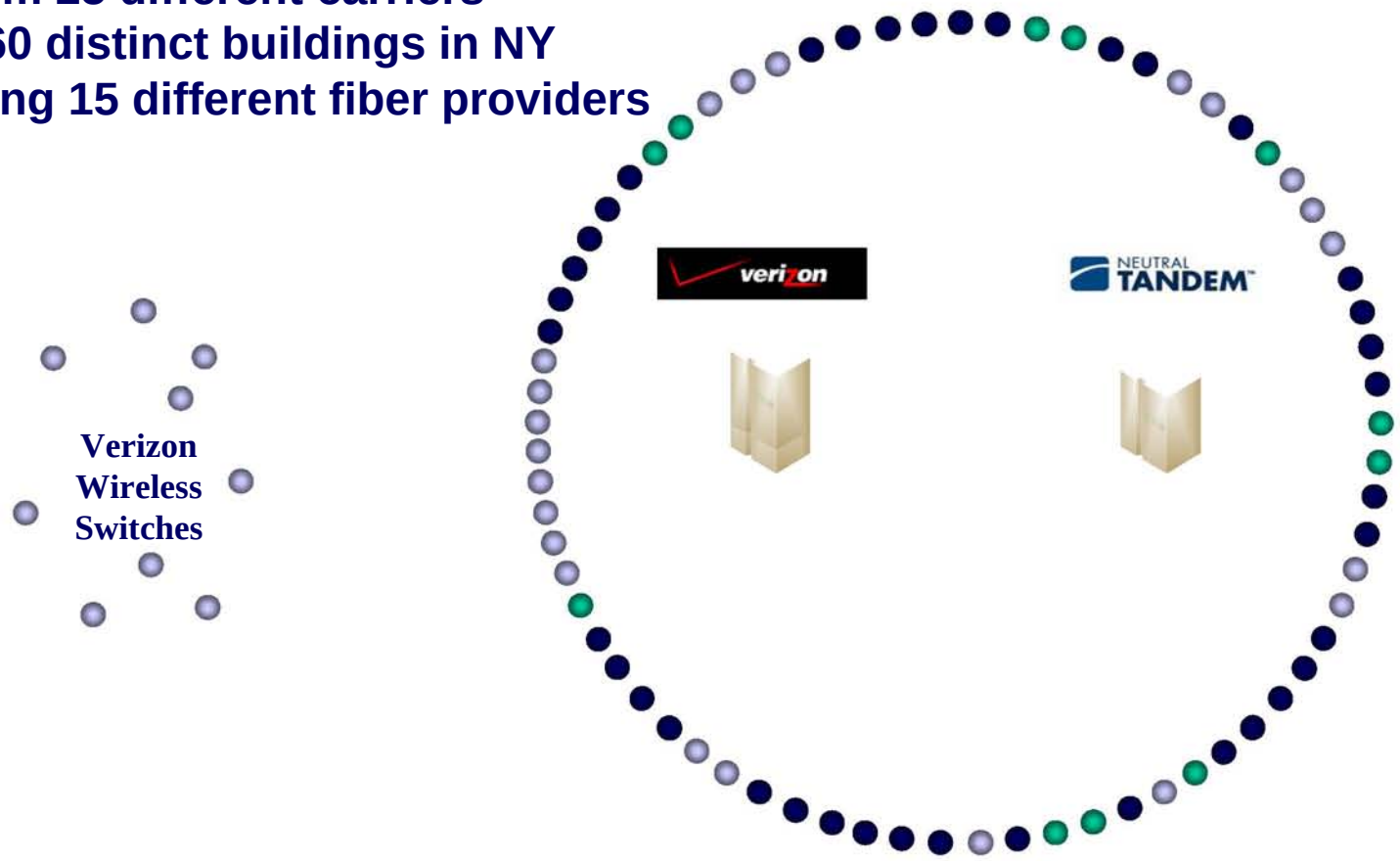
LEC tandems were a single point of failure

After Neutral Tandem

Diverse Tandems
Diverse Switch Sites
Diverse Transport
Diverse Routes

New York Example

- **Neutral Tandem connects 123 competitive switches in NY**
  - **From 25 different carriers**
  - **In 60 distinct buildings in NY**
  - **Using 15 different fiber providers**

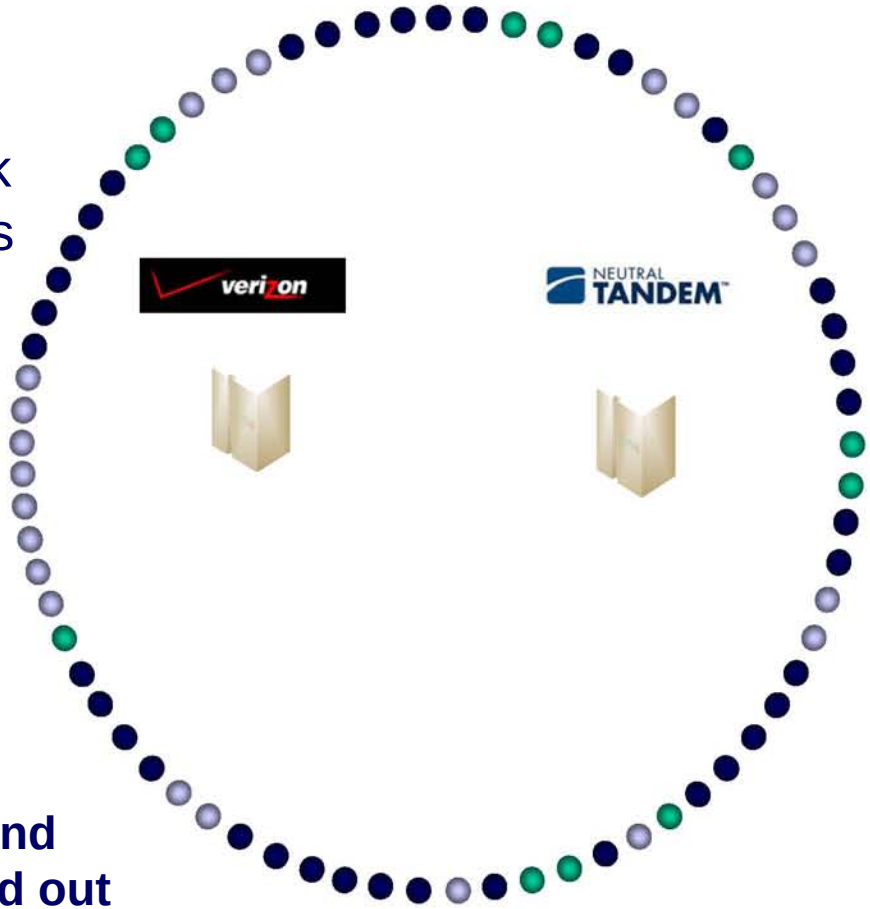


Key:
Wireless Switch **CLEC Switch** **Cable/IP Switch**

Homeland Security Benefit:
Tandem Redundancy

Without Neutral Tandem:

- Verizon Wireless switches lack redundant tandem connections



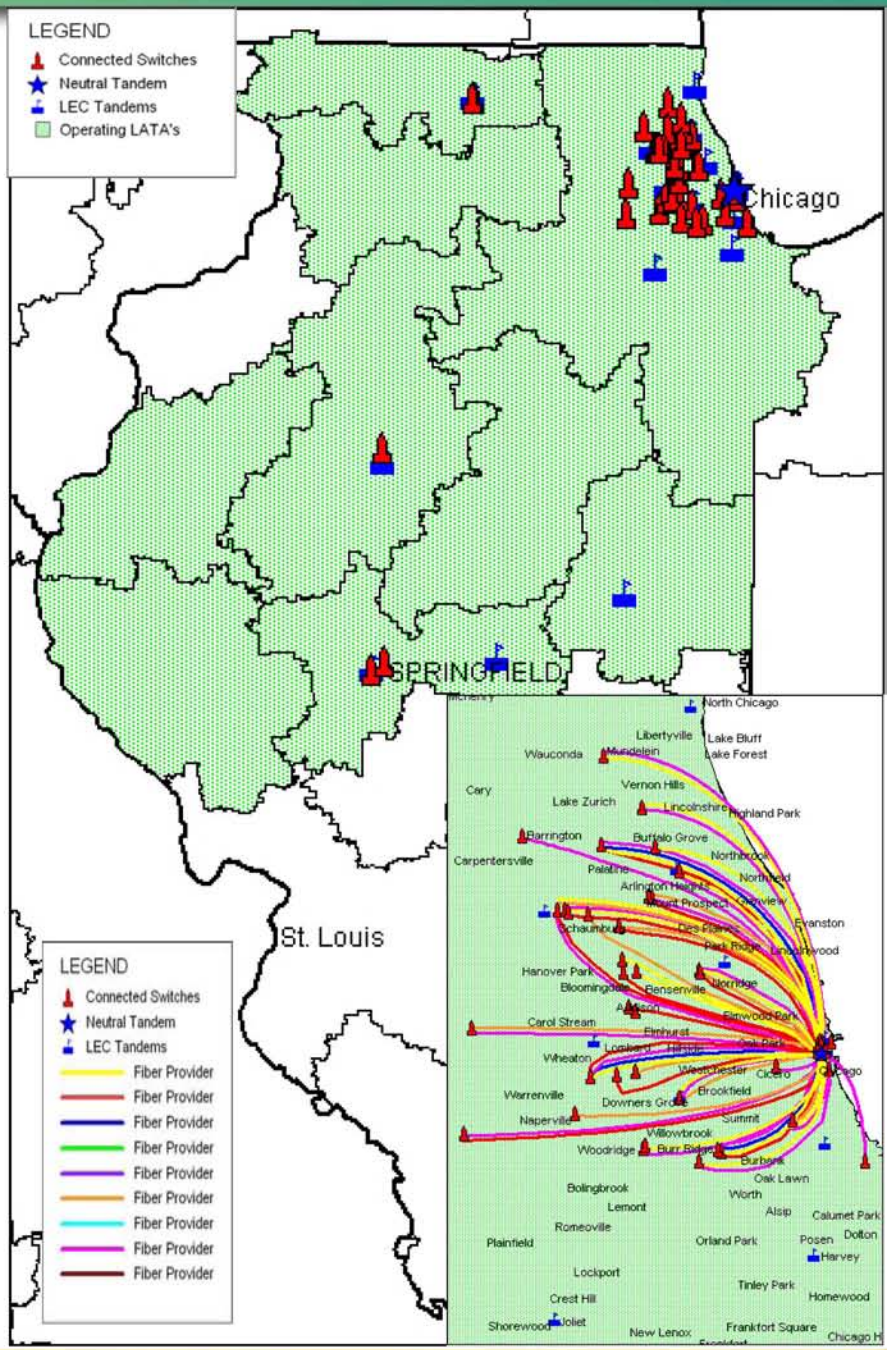
- **Exposes millions of corporate and consumer end users to extended out of service condition**

Key:
Wireless Switch **CLEC Switch** **Cable/IP Switch**

Tandem Path Diversity in Illinois

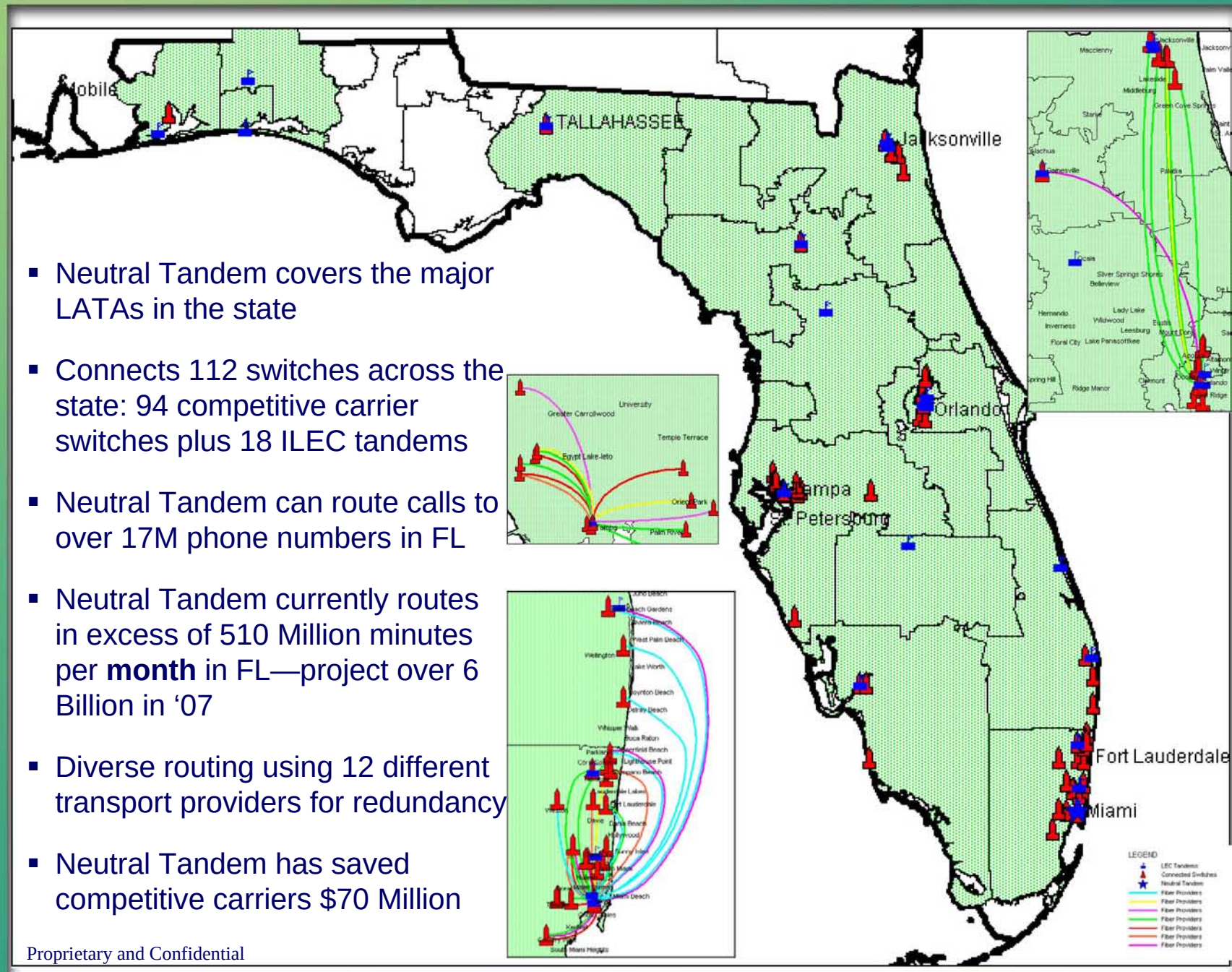
Neutral Tandem adds Diversity and Redundancy in both Tandem Transport and Tandem Switching

- Neutral Tandem covers all the major LATAs in the state
- Connects 100 switches in IL:
  78 competitive carrier switches;
  22 ILEC tandems
- Neutral Tandem can route calls to over 21M phone numbers in IL
- Neutral Tandem currently routes in excess of 450 Million minutes per **month** in IL - project 6 Billion in ’07
- Diverse routing using 10 different transport providers for maximum redundancy
- Neutral Tandem has saved competitive carriers $70 Million



Tandem Path Diversity in Florida

Neutral Tandem adds Diversity and Redundancy in both Tandem Transport and Switching

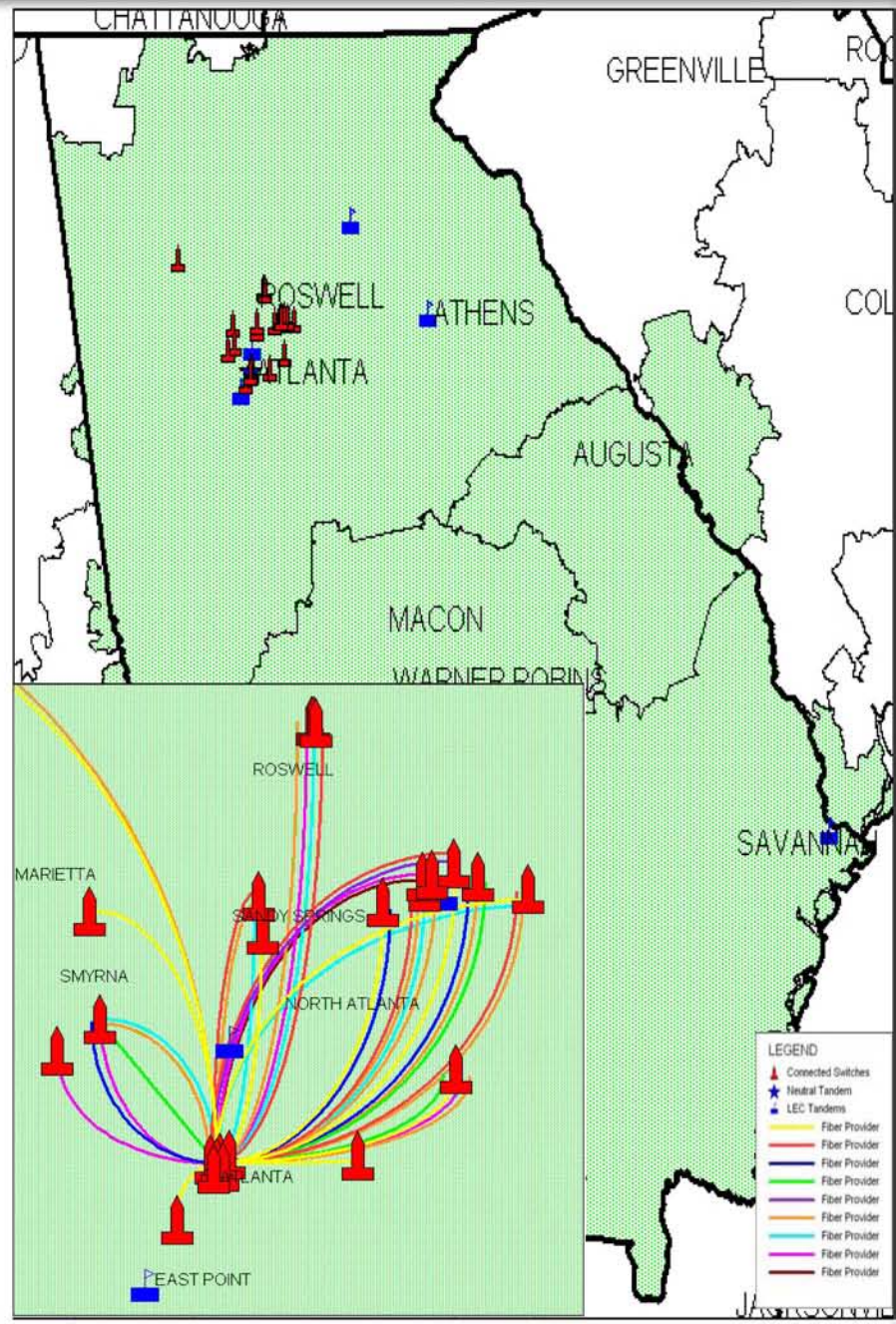


- Neutral Tandem covers the major LATAs in the state
- Connects 112 switches across the state: 94 competitive carrier switches plus 18 ILEC tandems
- Neutral Tandem can route calls to over 17M phone numbers in FL
- Neutral Tandem currently routes in excess of 510 Million minutes per **month** in FL—project over 6 Billion in '07
- Diverse routing using 12 different transport providers for redundancy
- Neutral Tandem has saved competitive carriers $70 Million

Making a Difference in Georgia

Neutral Tandem adds Tandem Diversity and Redundancy in both Transport and Switching

- Neutral Tandem covers the major LATAs in the state
- Connects 45 switches across the state: 39 competitive carrier switches plus 6 BellSouth tandems
- Neutral Tandem can route calls to over 6.2M phone numbers in GA
- Neutral Tandem currently routes in excess of 215 Million minutes per **month** in GA—projected 3B '07
- Diverse routing using 10 different transport providers for redundancy
- Neutral Tandem has saved competitive carriers $70 Million



Where Does the Issue Stand Today?

- FCC opened Docket 06-159 requesting comments
- Homeland Security & other benefits tied to Neutral Tandem Petition's were broadly recognized and supported by 20+ parties
  - Cities (New York & Chicago)
  - State regulators
  - Carriers including AT&T
- Verizon Wireless is as isolated in its position as its switches
- A crowded FCC agenda threatens to jeopardize a decision on this important issue impacting public safety

Public Interest Support the Petition

New York DPS:

"After the September 11 attack, we found that the wireless industry may have consistently undersized trunks interconnecting their services to wireline facilities. While this practice may make sense from a purely economic standpoint, the danger is that it can result in network 'choke points' that may easily become swamped in emergency or catastrophic situations."

City of Chicago:

"The City urges the Commission to heed the [Hurricane Katrina] panel's guidance and not limit availability of the competitive alternatives offered by Neutral Tandem, which positively affect both current emergency preparedness efforts and the City's ability to respond to a future crisis situation. Because encouraging redundancy in the PSTN in the manner requested by Neutral Tandem before disaster strikes is to the benefit of all citizens, the Petition should be granted."

City of New York:

"[New York City] has emphasized the need for increased diversity (distributed networks) and survivability in the telecommunications sector in New York. Given the instant Petition's implications for network diversity and homeland security, [New York City] reiterates those positions in this case."

Public Interest Support the Petition

- **Illinois Commerce Commissioner Lieberman:**

  "Neutral Tandem's operations as an alternate tandem service provider would add redundancy to the telecommunications network, and could minimize service disruptions in the event of natural disasters and other catastrophes."

- **Comptel:**

  "Neutral Tandem's direct connections with Verizon Wireless will advance network reliability and redundancy, will aid disaster recovery in the event of any overcapacity or outage situation, and will therefore promote homeland security."

- **McLeodUSA:**

  "The availability of an alternative, competitive tandem service also increases the network's overall efficiency, redundancy and reliability, which in turn speeds up disaster recovery efforts and bolsters homeland security."

- **Joint Commenters:**

  "[C]reating an additional termination route to Verizon Wireless promotes network reliability, diversity, homeland security, and disaster recovery across the PSTN as a whole. The benefits are especially great in areas suffering from ILEC tandem exhaust and call blocking due to that tandem over-capacity."

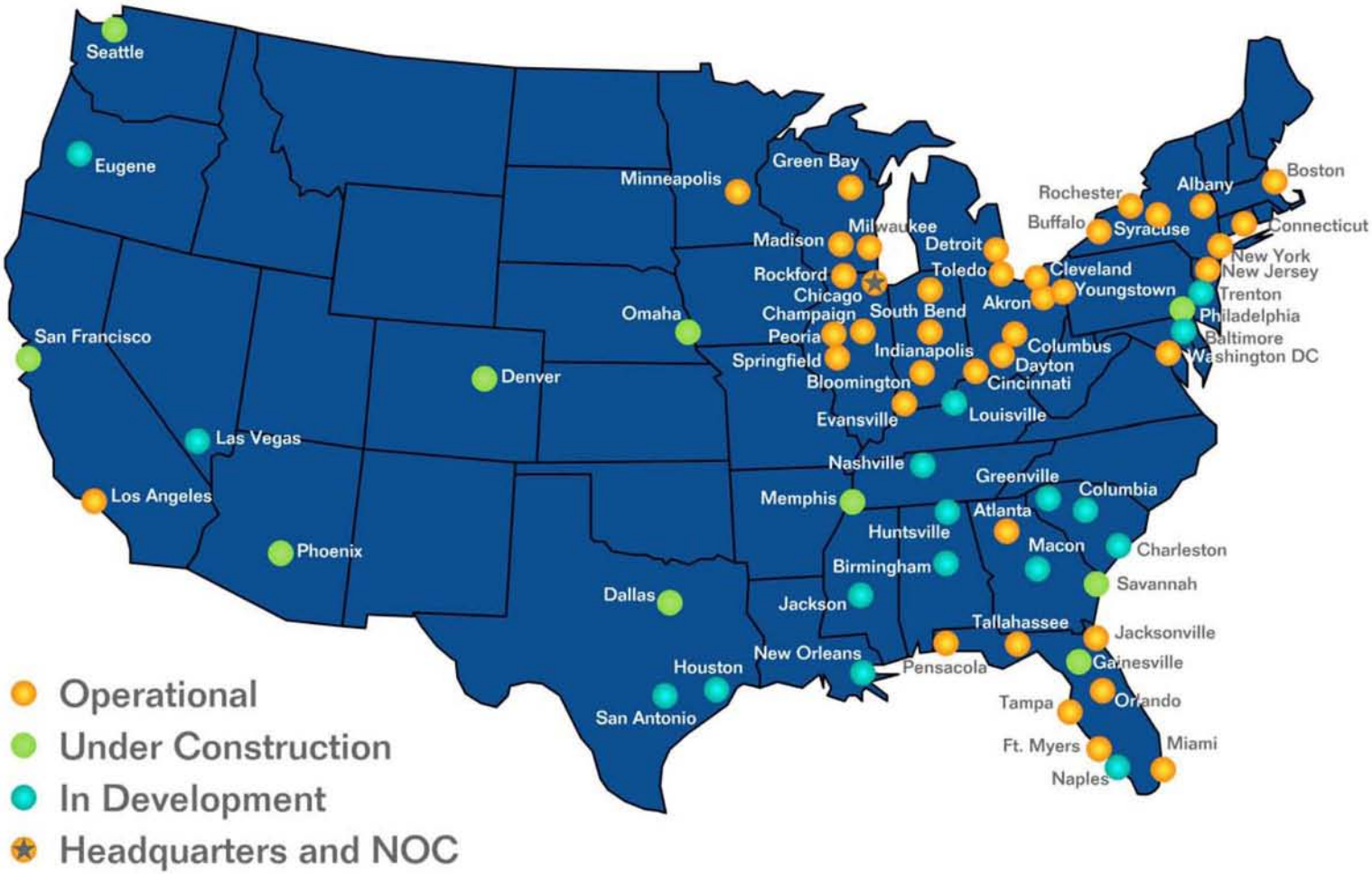
In Summary…

- Creating additional transport paths for routing tandem traffic is critical for network reliability
- Dependency on the legacy LEC tandems creates a critical choke point in our nation's telecom infrastructure
- Hardening the country's telecom network is essential to Homeland Security
- A solution is available to the public at no cost to taxpayers
- Great opportunity for Chairman Martin to make it clear that Homeland Security will be decided based upon the public's interest – not a lone obstructionist

Neutral Tandem's Coverage

Coverage:

- **64 LATAs across the country**
- **Over 155M phone numbers available to route to**



Neutral Tandem's Connectivity

Over 60 of the leading telecom companies rely on Neutral Tandem

Major Wireless Carriers

T-Mobile · cingular · Alltel · DOBSON CELLULAR SYSTEMS · Sprint Together with NEXTEL · metroPCS Permission to speak freely · U.S. Cellular · Airadigm Communications · revol.

Cable & VoIP Companies

COX COMMUNICATIONS · CABLEVISION · comcast · RCN The live wire of communications · Level(3) COMMUNICATIONS · VONAGE LEADING THE INTERNET PHONE REVOLUTION · BROADVOX THE BROADBAND PHONE REVOLUTION · Reynwood Communications · VOEX · SunRocket Internet Phone Service

CLECs (Competitive Local Exchange Companies)

at&t · MCI · US LEC voice / data / Internet · TelePacific COMMUNICATIONS · ICG Communications · ITC DELTACOM Telecom Simplified · CBEYOND COMMUNICATIONS · PAETEC COMMUNICATIONS · AccessOne · mpower Communications · CINERGY · LDMI · GLOBALCOM · Broadview Networks · McLeodUSA · CTC COMMUNICATIONS · CIMCO · TelNet Worldwide · TelePacific COMMUNICATIONS · EUREKA NETWORKS · TDS · eschelon telecom, inc. · IDS TELECOM · NEXTERA · Cleartel COMMUNICATIONS · IDS TELECOM · Broadview Networks · CITYNET · DCI · TIME WARNER TELECOM · HickoryTech · cci · Conversent · TalkAmerica · NUVOX communications · RNK COMMUNICATIONS · NationsLine · Lightpath A CableVision Company · Choice One Communications · FDN COMMUNICATIONS · Pac-West

SUMMARY OF NEUTRAL TANDEM'S POSITION CONCERNING THE PENDING PETITION FOR INTERCONNECTION WITH VERIZON WIRELESS

I. DISCUSSION

1. The Commission's legal authority to grant the relief sought by Neutral Tandem's Petition is derived from Sections 201(a) and 332(c)(1)(A) of the Communications Act of 1934, as amended (the "Act"). Section 201(a) provides in pertinent part that: "It shall be the duty of every common carrier engaged in interstate or foreign communication …, in accordance with the orders of the Commission, in cases where the Commission, after opportunity for hearing, finds such action necessary or desirable in the public interest, to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes." Section 332(c)(1)(A) provides that "[a] person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this chapter, except for such provisions of subchapter II of this chapter as the Commission may specify by regulation as inapplicable to that service or person. In prescribing or amending any such regulation, the Commission may not specify any provision of section 201, 202, or 208 of this title …." Verizon Wireless is engaged in the provision of a commercial mobile service and, therefore, is subject to the physical connection and other requirements of Section 201(a).

2. At the outset, the Commission should find that the Petition demonstrates that the connections requested by Neutral Tandem are "necessary or desirable in the public interest" because they will be economically efficient and result in lower costs to the users of telecommunications service; and will permit Neutral Tandem's carrier customers to exchange traffic with Verizon Wireless more economically and more reliably.[1] Interconnection between Verizon Wireless and Neutral Tandem will also promote network reliability, diversity, and disaster recovery.

[1] Neutral Tandem has stated that it will arrange for, and be responsible for, all the transport to the Verizon Wireless switch sites--that there would be no out-of-pocket costs to Verizon Wireless; that the engineering requirements for such terminating trunking are minimal; and to the extent that the trunking would reduce the Verizon Wireless-bound traffic transited through the Verizon or other LEC tandems, it would reduce Verizon Wireless' interconnection traffic costs. *See Petition*, at 9. Neutral Tandem has also stated that it will provide Verizon Wireless with terminating transit reports, a

A. The Interconnection Sought by Neutral Tandem is in the Public Interest

3. The Commission has repeatedly found that the public interest is served by unrestricted interconnectivity among telecommunications carriers, including CMRS carriers.[2] Indeed, the duty of all common carriers to interconnect with each other "directly or indirectly" was codified by Congress in 1996 as Section 251(a)(1).[3] Additionally, the Commission still has jurisdiction under Section 201(a) to require direct

useful source of information for network planning and bill verification purposes, access to billing records (if Verizon Wireless wants to bill reciprocal compensation to any of the carriers Neutral Tandem is connected to), near real-time traffic utilization reports on all of the relevant trunk groups, and a central point of contact. *See id.* Despite Neutral Tandem's offers, the record demonstrates that Verizon Wireless has rejected Neutral Tandem's request for direct trunk interconnection.

[2] *See, e.g., Petition of Offshore Telephone Pursuant to Section 201(a) of the Communications Act of 1934, as amended, for Establishment of Charges for Through Interstate Communications Service and Division of Such Charges With South Central Bell Telephone Co. and American Telephone and Telegraph*, 68 FCC 2d 63 (1978); *Mobile Marine Radio, Inc. v. South Central Bell Telephone Co.*, 63 FCC 2d 266 (1977); *Peoples Telephone Cooperative, Inc. v. Southwestern Bell Telephone Co. and General Telephone Co. of the Southwest*, 62 FCC 2d 113 (1976); *Joint Petition of CPI Microwave, Inc., and Midwestern Relay Co. for an Order to Show Cause with Respect to American Telephone and Telegraph Co., Illinois Bell Telephone Co., and Southwestern Bell Telephone Co.*, 49 FCC 2d 778 (1974); *ITT World Communications Inc. Petition under Section 201(a) of the Communications Act of 1934 for Connection With RCA Global Communications, Inc. to Enable ITT World Communications Inc. to Provide Telex and Message Telegraph Services to Guam*, 42 FCC 2d 228 (1973); *Application of Medical-Dental Bureau, Inc. Pursuant to Section 201(a) of the Communications Act of 1934, as amended, for Establishment of Physical Connection Between Its Facilities and Those of Ohio Bell Telephone Co.*, 22 FCC 2d 53 (1970); *American Telephone & Telegraph Co., et al. Offer of Facilities for Use by Other Common Carriers*, 47 FCC 2d 660 (1974); *Matanuska Telephone Assoc., Inc., Western Union Int'l., Inc. Pursuant to Section 201(a) of the Communications Act of 1934, as Amended, for Establishment of Physical Connections Between Its Proposed Facility at Twelvemile, Alaska, and the Existing Toll Center at Anchorage, Alaska and RCA Alaska Communications, Inc. Pursuant to Section 201(a) of the Communications Act of 1934, as Amended, for Establishment of Physical Connections Between the Terminus of the Proposed Microwave Facilities at Anchorage, Alaska, and the Facilities of the Anchorage Telephone Utility*, 20 FCC 2d 405 (1969); *Petition of Tri-City Telephone Co., Schenectady, NY Pursuant to Section 201(a) of the Communications Act of 1934, As Amended, For Establishment of Physical Connection Between Its Facilities and Those of the New York Telephone Co.*, 20 FCC 2d 674 (1969).

[3] *See generally* AT&T Reply Comments, at 2 ("[U]nder § 251(a)(1), *all* telecommunications carriers have a clear obligation to interconnect directly or indirectly with other telecommunications carriers.") (emphasis in original). *See*

interconnection when required by the public interest.[4] Verizon Wireless has conceded that the Commission retains such authority.[5]

4. The policies that the Commission developed in the 1970s to mandate interconnection among wireline carriers, including carriers who were in competition with each other, are equally applicable in the competitive market for mobile services. As the Commission previously has stated, "[W]e believe that the interconnectivity of mobile communications networks promotes the public interest because it enhances access to all networks, provides valuable network redundancy, allows for greater flexibility in communications, and makes communications services more attractive to consumers. It is one further step toward a ubiquitous 'network of networks.'"[6] Further, the Commission has notified CMRS carriers that it will require interconnection when the public interest demands it. "[W]e remind all CMRS providers from whom interconnection is sought, that they are common carriers subject to the basic commands of Sections 201 and 202 of the Communications Act."[7]

id., at 3 ("Originating telecommunications carriers also should have the right to determine whether they will deliver telecommunications traffic directly or indirectly to terminating telecommunications carriers.").

[4] Section 251(i) states that "[n]othing in this section [251] shall be construed to limit or otherwise affect the Commission's authority under section 201."

[5] *See* Verizon Wireless Reply Comments, at 3. ("Verizon Wireless has never claimed to be *exempt* from Section 201(a), and thus the fact that Section 332 prohibits the Commission from exempting CMRS carriers from Section 201(a) is irrelevant to this matter. It has been Verizon Wireless's consistent position that Neutral Tandem is free to petition the Commission for direct connections with Verizon Wireless under Section 201(a).").

[6] *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services,* Notice of Proposed Rulemaking, 10 FCC Rcd. 10666, 10681 (1995) ("*CMRS NPRM*"). The Commission further noted that "[t]he record suggests that the availability of transit service is increasingly critical to establishing indirect interconnection – a form of interconnection explicitly recognized and supported by the Act." *Developing a Unified Intercarrier Compensation Regime,* Further Notice of Proposed Rulemaking, CC Docket No. 01-92, FCC 05-33, at ¶ 125 (rel. March 3, 2005) ("*Intercarrier Compensation FNPRM*"). The Commission went on to solicit specific data and comment concerning the role of transit functions in a competitive market, and on whether a competitive market currently exists for tandem switching and transiting. *Id.* at ¶¶ 126-133.

[7] *CMRS NPRM,* 10 FCC Rcd. at 10685, ¶ 38.

5. Indeed, when the Commission considered the scope of mobile service interconnection obligations a decade ago, it identified two examples where CMRS carriers' refusals to interconnect would, at a minimum, be deemed suspect, and would likely be in violation of Section 201 of the Act. The first example is where a CMRS carrier's refusal to interconnect would be economically inefficient, and would impose costs on the requesting carrier, or forego cost savings:

> [E]stablished industry representatives (cellular carriers, LECs, trade associations) have represented that when traffic volumes between CMRS systems justify direct connections, the industry will implement interconnection because it will make business sense to do so. The current record presents the Commission with no reason to believe that this will not be the case, and we fully expect all CMRS providers to behave in an economically rational manner and to implement direct and efficient network connections at reasonable costs when the opportunity and need arise.[8]

6. The second example in which the Commission considered that a CMRS carrier's refusal to interconnect would merit special scrutiny is when the CMRS carrier is affiliated with an ILEC. In detailing this example, the Commission recognized that ILEC-affiliated CMRS carriers may have an incentive to act in an economically irrational manner in order to secure a competitive advantage for ILEC owners or affiliates.

> [T]he Commission stands ready to intercede in the event a CMRS provider refuses a reasonable request to interconnect. We will be particularly vigilant in policing, where they exist, any efforts by CMRS providers to deny interconnection in order to gain an unfair competitive advantage. For example, we would find LEC investment in, and affiliation with, the party denying interconnection an important factor in assessing whether such denial was motivated by an anticompetitive animus. Unlike independent CMRS carriers, LEC-affiliated CMRS carriers may have a unique incentive to deny interconnection so as to keep CMRS-to-CMRS traffic interconnected through the local exchange landline network, and to continue to collect CMRS interconnection charges from both sets

[8] *Id.* at 10684-85, ¶ 37.

> of CMRS providers through their access charge structure. Such LEC ownership interests may play an important role in assessing whether a denial of interconnection is a reasonable business decision or a form of anticompetitive conduct intended to raise rivals' costs of doing business and hence hinder competition.[9]

7. Neutral Tandem has argued that Verizon Wireless gains nothing for itself by refusing to directly connect to Neutral Tandem, arguing that while such refusals lead to lost cost savings for Verizon Wireless, such refusals benefit its wireline affiliate, Verizon Communications.[10] The tandem transit and switched access services provided by Neutral Tandem directly compete with the historically monopoly tandem services offered by Verizon Communications and the other ILECs. Direct connection between Verizon Wireless and Neutral Tandem in New York, for example, facilitates the ability of IXCs, CLECs, and independent CMRS carriers to bypass the Verizon Communications tandem and obtain more efficient and cost effective service from a competitive tandem carrier. By refusing interconnection, Neutral Tandem argues that Verizon Wireless protects the interests of Verizon Communications, which along with other ILECs, currently provides tandem transit services on a monopoly basis in its service territory.

(i) *Interconnection Will Provide Tandem Competition*

8. The Commission should find that the physical connections and direct trunk "through routes" to Verizon Wireless sought by Neutral Tandem to establish such competition are in the public interest. Competitive alternatives to the ILEC tandems cannot possibly exist if the competitor cannot deliver traffic to terminating carriers. As recognized by nearly every commenter in this proceeding, even wireless commenters, the creation of a competitive tandem market is in the public interest.[11] This position of course was long recognized by the FCC. As noted by the Commission's *Tandem-Switching Order*:

[9] *CMRS NPRM,* 10 FCC Rcd. at 10687 (footnotes omitted).

[10] *See Petition*, at 11.

[11] *See, e.g.,* Cbeyond Comments, at 1-2; COMPTEL Comments, at 4-7; Integra Comments, at 1-2; Joint Commenters Comments, at 1; McLeodUSA Comments, at 2; and One Communications Comments, at 1. "RCA supports

> By further reducing barriers to competition in switched access services, our actions will benefit all users of tandem switching…. Our actions also should promote more efficient use and deployment of the country's telecommunications networks, encourage technological innovation, and exert downward pressure on access charges and long distance rates, all of which should contribute to economic growth and the creation of new job opportunities. *In addition, these measures should increase access to diverse facilities, which could improve network reliability.*[12]

9. Verizon Wireless' refusal to interconnect with Neutral Tandem, if permitted to continue, would preclude tandem competition and therefore frustrate the diversity and efficiency benefits of such competition, as recognized by both the Commission and the parties to this case.[13]

(ii) *Interconnection Will Provide Marketplace Efficiencies*

10. Numerous commenters in this proceeding have confirmed the marketplace efficiencies that Neutral Tandem's services provide. For example, "Cbeyond can lower its monthly transit costs by 20 to 25 percent in markets where it purchases transit service from Neutral Tandem. But Verizon Wireless' refusal to interconnect with Neutral Tandem forces Cbeyond to route its traffic to Verizon Wireless customers through an incumbent LEC's tandem and forego the cost savings offered by a competitive alternative."[14] Cbeyond also notes that Verizon Wireless' refusal to interconnect with Neutral Tandem "threaten[s] to force competitors to deploy inefficient network architectures. In the absence of an alternative service provider, the

efforts to provide competitive intercarrier transit and tandem-switched access services." Rural Cellular Association Comments, at 1.

[12] *See Expanded Interconnection with Local Telephone Company Facilities, Transport Phase II*, 9 FCC Rcd. 2718, ¶2 (1994) (emphasis added).

[13] See COMPTEL at 4-7, Integra at 3; and McLeodUSA at 2. See also Rural Cellular Association at 1 (supporting efforts to provide competitive intercarrier transit and tandem-switched access services).

[14] Cbeyond Comments, at 2.

requesting carrier must either build direct trunks to the other networks or purchase direct trunks from the ILEC when a requesting carrier's tandem traffic volume exceeds the limits permitted by the ILEC."[15]

11. According to Neutral Tandem, the company allows multiple competitive carriers to aggregate traffic to levels appropriate for direct interconnection to a termining carrier by Neutral Tandem, but which individually do not justify direct connection.[16] Moreover, Neutral Tandem and a number of commenters argue that this competitive tandem services network created by Neutral Tandem provides critical redundancy benefits by establishing multiple traffic termination paths.[17] Neutral Tandem thus creates network efficiencies,[18] including for Verizon Wireless, which itself has expressed a desire to direct connect with carriers at larger traffic levels.[19] Indeed, by aggregating such traffic, Neutral Tandem provides multiple

[15] Cbeyond Comments, at 3.

[16] *See Neutral Tandem Reply* Comments, at 13-14. Grant of Neutral Tandem's petition does not preclude Verizon Wireless from establishing a direct connection with any other carrier upon mutual agreement.

[17] *See* Cbeyond Comments, at 1; COMPTEL Comments, at 3, 5-6; Integra Telecom Comments, at 3; McLeodUSA Comments, at 1, 3; Neutral Tandem Reply Comments, at 5-6; COMPTEL Reply Comments, at 4; New York Department of Public Service Reply Comments, at 2. *See also* Letter from Mara S. Georges, Corporation Counsel, City of Chicago, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1 (filed Oct. 4, 2006); Letter from Robert F. Liberman, Commissioner, Illinois Commerce Commission, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 2 (filed Oct. 12, 2006); Letter from Mitchel Ahlbaum, Deputy Commissioner for Franchise Administration and Policy & General Counsel, New York City Department of Information Technology and Telecommunications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 2 (filed Oct. 19, 2006).

[18] *See* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, Presentation, at 9-11 (filed April 10, 2007) (demonstrating switch connectivity redundancy in various states and estimating savings to carriers based on minutes of use per month in these areas).

[19] *See* Direct Testimony of Charon Phillips, Regulatory Counsel, Verizon Wireless, Georgia Public Service Commission Docket No. 16772-U (filed July 1, 2004). "ILECs generally limit tandem traffic volume to a DS1 of capacity, which is too low a volume to justify the deployment of direct trunks to other carriers' networks. Purchasing direct trunks at special access rates is also equally prohibitively expensive. Neutral Tandem offers a more efficient (and usually the only) alternative, aggregating traffic from multiple CLECs and CMRS providers (other than Verizon Wireless) over a direct trunk thereby spreading the costs of direct connection over multiple requesting carriers."

benefits to its customers, Verizon Wireless, and the entire PSTN through "increased operational options, reduced transiting traffic costs, and decreased levels of tandem exhaust at ILEC tandems."[20]

12. Tandem competition exerts downward pressure on transit and access charges and thus on local (including wireless) and long distance rates. As noted by the Commission as early as 1994, in the *Tandem-Switching Order*:

> By further reducing barriers to competition in switched access services, our actions will benefit all users of tandem switching…. Our actions also should promote more efficient use and deployment of the country's telecommunications networks, encourage technological innovation, and exert downward pressure on access charges and long distance rates, all of which should contribute to economic growth and the creation of new job opportunities. *In addition, these measures should increase access to diverse facilities, which could improve network reliability.*[21]

13. Verizon Wireless' contention that direct connections would not be efficient is countered by the fact that nearly every interconnection agreement filed under Section 252 requires that carriers establish direct connections between switches when there are traffic levels greater than the capacity of a T-1.[22] Verizon Wireless' own counsel in this proceeding, Charon Philips, testifying under oath before the Georgia Public Service Commission, directly contradicted Verizon Wireless' efficiency claim:

> Direct interconnection arrangements are generally efficient where the volume of traffic exchanged reaches *500,000 minutes of traffic on a monthly basis*. Where

[20] COMPTEL Comments, at 5. *See also* Cbeyond Comments, at 2.

[21] *See Expanded Interconnection with Local Telephone Company Facilities, Transport Phase II*, 9 FCC Rcd. 2718, ¶2 (rel. May 27, 1994) (emphasis added).

[22] *See generally Petition of Worldcom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for the Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, Memorandum Opinion and Order, 17 FCC Rcd. 27039, 27079-84 (Wireline Comp. Bur. 2002) ("*Virginia Arbitration Order*").

> traffic volumes are below the threshold, Verizon Wireless utilizes indirect interconnection arrangements, which do not require the construction or leasing of dedicated facilities but do allow for the exchange of traffic with all the [smaller carriers] that are also interconnected with the tandem facilities of larger ILECs.[23]

14. As Neutral Tandem's requested relief would be applicable to those markets where the Parties would exchange more than 500,000 minutes of traffic per month, Verizon Wireless has admitted that direct connection with Neutral Tandem would be "efficient." 500,000 minutes of use typically equates to two (2) T-1s. In comparison, Neutral Tandem, well within the Wireline Competition Bureau's finding in the *Virginia Arbitration* decision,[24] requests interconnection for three (3) T-1s worth of terminating traffic, which equates to approximately 750,000 minutes of use per month. Verizon Wireless' argument that direct connection with Neutral Tandem would not enhance network efficiency[25] is clearly contradicted by its previous testimony as to what level of traffic dictates the efficiency of direct connections as well as by the statements and actions of its wireline affiliate Verizon.

15. Verizon Wireless' claims that "administrative burdens," will arise should Neutral Tandem be allowed direct interconnection with its network are not persuasive.[26] As stressed by Neutral Tandem, the dispute between the companies is not about the terms of such interconnection, but the fact that Verizon Wireless refuses to interconnect at all on any terms at all. Therefore, Verizon Wireless' concerns about potential administrative burdens in measuring the *costs* of interconnection are not relevant here. As

[23] Direct Testimony of Charon Phillips, Regulatory Counsel, Verizon Wireless, Georgia Public Service Commission Docket No. 16772-U (filed July 1, 2004) (emphasis added). "Asserting the need to avoid tandem exhaustion, Verizon seeks to include language requiring AT&T and Cox to establish direct trunks to a Verizon end office when either petitioner exchanges traffic volumes corresponding to a DS-1 level of traffic with a particular end office." *Virginia Arbitration Order* at 27079, ¶ 77.

[24] *See Virginia Arbitration Order*, at 27085-86 (adopting Verizon's interconnection proposal requiring direct trunking at the one (1) DS-1 (T-1) threshold level).

[25] *See* Verizon Wireless Comments, at 15.

[26] *See* Verizon Wireless Comments, at 13-14 (noting that interconnection costs may be burdensome for carriers to determine).

discussed below, however, the Commission should provide a mechanism for resolving any impasse if the two carriers are unable to reach agreement on reasonable terms and conditions for interconnection.

(iii) *Interconnection Will Provide Benefits to Network Reliability and Public Safety*

16. The Commission should further find that the physical interconnection and direct trunk "through routes" to Verizon Wireless sought by Neutral Tandem are in the public interest because such interconnection will promote network reliability and public safety. The establishment of direct connections between Neutral Tandem and Verizon Wireless as an independent route for the termination of traffic will add critical network redundancy into Verizon Wireless' network, as well as the PSTN at large. The provision of these separate facilities will establish new and alternate network paths, building redundancy and resiliency into the PSTN in the event of an outage or overcapacity situation.

a. Redundant Routing Will Promote Network Reliability

17. The record reflects that the grant of Neutral Tandem's request for direct connection inherently builds redundancy into the telecommunications sector and infrastructure, which, in turn, will allow for faster disaster recovery and provides more robust homeland security. Contrary to Verizon Wireless' assertion that Neutral Tandem only duplicates existing ILEC tandem arrangements,[27] Neutral Tandem's services are not "layered over" ILEC facilities. The record shows that Neutral Tandem does not collocate *any* of its switching equipment with ILECs and makes every effort not to use any ILEC transport facilities.[28] Neutral Tandem's transport network includes facilities secured from all the various fiber carriers in the market, complete with redundant connectivity and entirely separate from ILEC tandems. Neutral Tandem seeks to track its transport facilities at the circuit level to seek to ensure that its transport routes are diverse from those used by its customers to connect to ILEC tandems, and further ensures diversity within its network by managing its own

[27] *See* Verizon Wireless Comments, at 21.

[28] *See* Neutral Tandem Reply Comments, at 6. *See also* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1 (filed April 10, 2007).

SONET ring architecture and leasing transmission facilities from multiple fiber providers within each market.[29] Finally, Neutral Tandem maintains connections between its tandem switch and multiple ILEC tandems in each market, to provide yet another routing option for traffic completion in the unlikely event of network outages.[30] The multiple alternative routings made possible by Neutral Tandem's network greatly strengthen the capacity of the PSTN during natural disasters and other emergencies that either damage network infrastructure, cause an unexpected increase in calling volume, or both.[31]

18. The comments of Neutral Tandem's carrier customers and others show the tangible redundancy benefits delivered by Neutral Tandem,[32] including more connections, more diverse termination paths, more

[29] *See* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1 (filed April 10, 2007).

[30] *See id.*

[31] *See generally* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159 (filed Oct. 31, 2006).

[32] *See, e.g.,* COMPTEL Comments, at 3; Integra Comments, at 3; McLeodUSA Comments, at 3; Joint Commenters Comments, at 1; One Communications Comments, at 1. *See also* New York Department of Public Service Reply Comments, at 2. ("The NYDPS believes that the relief requested by Neutral Tandem will foster network reliability and competition in New York and elsewhere. Consequently, the Commission should grant Neutral Tandem's Petition on the grounds that doing so is in the public interest."); Letter from Mara S. Georges, Corporation Counsel, City of Chicago, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1 (filed Oct. 4, 2006) ("Because granting Neutral Tandem's request will promote such redundancy, which is plainly in the public interest, the City urges the Commission to act favorably on the Petition expeditiously."); Letter from Robert F. Liberman, Commissioner, Illinois Commerce Commission, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 2 (filed Oct. 12, 2006) ("As a state public utility commissioner, I am acutely interested in the redundancy and reliability of networks, such as is offered by Neutral Tandem's service. In this regard, Neutral Tandem's operations … would add redundancy to the telecommunications network, and could minimize service disruptions in the event of natural disasters and other catastrophes."); Letter from Mitchel Ahlbaum, Deputy Commissioner for Franchise Administration and Policy & General Counsel, New York City Department of Information Technology and Telecommunications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 2 (filed Oct. 19, 2006) ("DoITT supports network diversity and redundancy including the kind of switching diversity offered by, for example, Neutral Tandem's facilities. … DoITT would ask the FCC to act on both the Motion and the Petition filed by Neutral Tandem in a manner that protects the diversity and resilience of the City's telecommunications infrastructure.").

diversity in those connections, switches, and switch sites across the PSTN. From the standpoint of network reliability, such redundancy is clearly preferable to fewer connections and greater concentration of traffic on ILEC tandems, which necessarily results in more vulnerability to traffic disruptions and network outages.[33]

b. *Direct Connections Will Protect Public Safety*

19. Network reliability is a particularly urgent public safety concern in the event of natural disasters and other emergencies. The Katrina Report found, "[i]n reviewing the detailed reports from each communications sector, there were *three main problems that caused the majority of communications network interruptions:* (1) flooding; (2) lack of power and/or fuel; and (3) *failure of redundant pathways for communications traffic*."[34] The Katrina Report further notes that during the New Orleans disaster, "[t]he switches that failed, **especially tandems**, had widespread effects on a broad variety of communications in and out of the Katrina region."[35] The Katrina Report continues:

> As an example, a major tandem switch in New Orleans was isolated, which meant that no communications from parts of New Orleans to outside the region could occur. This switch, **an access tandem** that carried long distance traffic through New Orleans and out to other offices, had two major routes out of the city (one to the east and one to the west). The eastern route was severed by a barge that came ashore during the hurricane and cut the aerial fiber associated with the route. If only this route had been lost, the **access tandem traffic** could have continued. However, the western route was also severed—initially by large trees falling across aerial cables, then subsequently by construction crews removing debris from highway rights-of-way. While there were provisions for

[33] *See* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159 (filed Feb. 23, 2007).

[34] Katrina Report, at 13 (emphasis added).

[35] Katrina Report, at 14 (emphasis added).

rerouting traffic out of the city, the simultaneous loss of both of these major paths significantly limited communications service in parts of New Orleans.[36]

20. The increasing dependence on the ILEC tandem networks as the gateway for nearly all traffic exchange between all wireless, CLEC, IXC, cable and IP carriers is an unnecessary choke point in nation's communications infrastructure that must be addressed immediately. The Katrina Report shows the exigency of developing redundant tandem pathways and redundant traffic routing. The FCC's primary goal of protecting the national defense and "promoting safety of life and property through the use of wire and radio communications"[37] is served by establishing a policy of advancing such telecommunications redundancy in the United States. As noted by the Katrina Report, "Katrina highlighted the dependence on tandems and tandem access….The high volume routes from tandem switches, especially in and around New Orleans were especially critical and vulnerable. Katrina highlighted the need for diversity of call routing and avoiding strict reliance upon a single routing solution."[38]

21. The Commission has highlighted the importance that homeland security, public safety and emergency preparedness bear to its fundamental policy goals.[39] Most of the commenters to this proceeding have agreed that the interconnection requested by Neutral Tandem would benefit public safety. For example, COMPTEL notes that, "Neutral Tandem's direct connections with Verizon Wireless will advance network reliability and redundancy, will aid disaster recovery in the event of any overcapacity or outage situation, and will therefore promote homeland security."[40] COMPTEL also states that "[t]he [Katrina Report] panel's

[36] *Id.* (emphasis added).

[37] 47 U.S.C. § 151. *See also* Chairman Martin Statement at 4 ("When I first became Chairman, I identified public safety and emergency preparedness as another top priority. As memories of Hurricane Katrina and 9/11 continually remind us, one of our most important objectives is to ensure that basic public safety requirements are met.").

[38] Katrina Report, at 9.

[39] *See, e.g.,* Written Statement of the Honorable Kevin J. Martin, Chairman Federal Communications Commission, Before the Committee on Commerce, Science & Transportation, U.S. Senate, at 4, 12, 2006) ("Chairman Martin Statement").

[40] COMPTEL Comments, at 5. *See also* COMPTEL Comments, at 3 ("Neutral Tandem's service offerings promote efficiency, redundancy, diversity, and increased reliability in the [PSTN], which in turn improves disaster recovery and results in enhanced homeland security").

findings illustrate why the presence of viable, alternative service providers such as Neutral Tandem, which adds redundancy to the telecommunications infrastructure, could minimize the negative impact in the event of future natural disasters."[41] Further, Integra's comments note:

> [T]he Petition demonstrates that an additional termination route to Verizon Wireless would enhance the public switched telephone network by increasing network reliability, diversity, homeland security, and disaster recovery. Independent tandem services such as those provided by Neutral Tandem are especially important to alleviate incumbent LEC tandem exhaust and call blocking due to tandem over capacity. Therefore, as illustrated in the Petition, the public benefits of the interconnection requested by Neutral Tandem are substantial and meet the criteria in Section 201(a).[42]

22. McLeodUSA similarly points out that, "[a]llowing Neutral Tandem to directly interconnect with Verizon will increase network redundancy and reliability, areas the Commission has recently focused on as being necessary to promote disaster recovery."[43] Similar comments were also filed by Cbeyond,[44] One Communications, and the Joint Commenters.[45]

23. The record demonstrates that Neutral Tandem adds significant and real redundancy to the public telecommunications network in those locations it serves. Specifically, Neutral Tandem adds diverse

[41] COMPTEL Comments, at 5-6.

[42] Integra Comments, at 3.

[43] McLeodUSA Comments, at 3. "Neutral Tandem adds redundancy and reliability to the network which can mitigate the negative impact of future natural disasters." *Id.*

[44] See Cbeyond Comments, at 1 (noting that the provision of separate facilities increases the robustness of the PSTN in the event of outages).

[45] *See* Joint Commenters Comments, at 1 ("[C]reating an additional termination route to Verizon Wireless promotes network reliability, diversity, homeland security, and disaster recovery across the PSTN as a whole. The benefits are especially great in areas suffering from ILEC tandem exhaust and call blocking due to that tandem over-capacity"); One Communications Comments, at 1.

switches, diverse switch sites, diverse transport carriers, and diverse routes to the PSTN.[46] Increasing redundancy across the PSTN is clearly in the public interest. As noted in the Katrina Report,[47] added tandem network redundancy and diversity is a major requirement for disaster preparedness and homeland security in the United States. In this manner, Neutral Tandem hardens the PSTN by adding multiple layers of diversity to the public network through constructing and using diverse physical facilities provided by Neutral Tandem and numerous competitive carriers completely independent of ILECs. Neutral Tandem adds diverse switches, diverse switch sites, diverse transport carriers, and diverse routes to the PSTN. The PSTN benefits substantially from all these multiple layers of diversity.

24. The Commission should recognize the importance of homeland security and disaster recovery, and the benefits Neutral Tandem can provide to help alleviate critical choke points in the nation's telecommunications infrastructure given adequate interconnection with Verizon Wireless and other service providers. It is undisputed that the public at large will be served through enhanced redundancy in the telecommunications sector, especially in times of man-made or natural disasters. As such, the Commission should find that the requested Interconnection is in the public interest.

c. *Interconnection Will Reduce Tandem Exhaust*

25. Neutral Tandem is an independent provider of tandem services to third-party service providers that desire to terminate traffic with other service providers, including Verizon Wireless and other CMRS carriers. Neutral Tandem provides third-party carriers a competitive alternative to the existing ILEC tandem, thereby increasing the options and reducing the costs for transiting traffic for other carriers. As such, increased deployment of Neutral Tandem's offerings will decrease the level of tandem congestion at ILEC

[46] *See id.*, at 5.

[47] *See Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, Notice of Proposed Rulemaking*, EB Docket No. 06-119, Appendix B, Report and Recommendations to the Federal Communications Commission ("Katrina Report").

tandems, thereby diminishing the threat of tandem exhaustion and the intercarrier disputes such concerns generate.[48]

26. Neutral Tandem has argued that direct trunking of large volumes of traffic is a common practice throughout the industry because it helps to reduce congestion on tandem switches and protects against tandem exhaust. For example, Neutral Tandem points to the internal network engineering policy of Verizon Communications, which requires direct trunking around the tandem switch whenever a carrier exceeds one DS1 (1.455 Mbps) of capacity.[49] Although the Wireline Competition Bureau found that a less stringent requirement was reasonable,[50] the practice of direct trunking is nevertheless confirmed as a valid means of protecting against tandem exhaust. The fact that Verizon Wireless would reject a request for direct trunk interconnection that is clearly advantageous to it, and that comports with standard industry practices, including the network management practices of Verizon Wireless' parent company, strongly indicates that Verizon Wireless is acting in an unreasonable, economically inefficient, and anticompetitive manner.

27. Tandem exhaust is a recurring problem in many areas of the country, and has been for years.[51] Verizon Communications, for example, has raised its concerns over tandem exhaust in comments before the Commission in the Intercarrier Compensation proceeding. The Commission quoted Verizon Communications in its Intercarrier Compensation *FNPRM:* "[Incumbent LECs] explain that they limit the availability of [transit] services in order to prevent traffic congestion and tandem exhaust, and to encourage carriers to establish direct interconnection when traffic volumes warrant it."[52]

[48] *See, e.g., Core Communications v. Verizon Maryland, Inc.*, Memorandum Opinion and Order, 18 FCC Rcd. 7962 (2003).

[49] *See Virginia Arbitration Order, at* 27079-84.

[50] The Bureau adopted Cox Communications' compromise proposal for the establishment of end office trunking when traffic levels exceeded three (3) DS1s, measured over a period of three months. *See id.,* 17 FCC Rcd. at 27085-86, ¶ 89.

[51] *See Petition*, at 10.

[52] *Intercarrier Compensation FNPRM*, ¶ 122 & n.348.

28. Neutral Tandem's facilities free up capacity on ILEC tandems, creating additional capacity to handle traffic spikes in the event of a network outage or crisis, and as such, limits on Neutral Tandem's ability to directly interconnect with Verizon Wireless will also affect non-Neutral Tandem customer carriers trying to squeeze calls through already-exhausted ILEC facilities. The Commission should find that the provision of this extra tandem capacity is in the public interest.

B. The Commission Has Not Foreclosed Direct Connections to CMRS Carriers

29. Verizon Wireless and the other wireless commenters erroneously contend that the Commission has previously adopted a policy that prohibits Neutral Tandem or any other provider from seeking direct connections to CMRS carriers under Section 201. The cases cited by Verizon Wireless, however, are not applicable to Neutral Tandem's request, and in fact, are contrary to Verizon Wireless' position.

30. Verizon Wireless cites the *CMRS Interconnection Order*[53] as establishing that CMRS carriers need not provide direct connections to Neutral Tandem. However, that order applied only to *reseller* interconnection demands and to the issue of *mandatory* direct CMRS-to-CMRS connections, neither of which are at issue in this case. "This Report and Order resolves issues raised in 1995 in the Second NPRM in this proceeding concerning whether facilities-based commercial mobile radio service (CMRS) providers should be required to interconnect with CMRS *resellers' switches or with each others' networks.*"[54] The *CMRS Interconnection Order* did not address case-by-case requests for interconnection under Section 201, much less foreclose them.

31. Moreover, Section 332(c)(1)(A) of the Act specifically forbids exempting CMRS carriers from Section 201 interconnection duties. Indeed, in the *CMRS Order on Reconsideration*, the Commission expressly stated that "the Fourth Report and Order does not preclude the Commission from considering other requests for interconnection, but, as Verizon and CTIA recognize, merely rejected a rule requiring mandatory

[53] *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Fourth Report and Order, 15 FCC Rcd. 13523 (2000) ("*CMRS Interconnection Order*").

[54] *CMRS Interconnection Order*, ¶ 1 (emphasis added).

interconnection based on the record in this proceeding."[55] Moreover, as the above quotation recognizes, Verizon Wireless itself, in contradiction to its position in this proceeding, argued that the *CMRS Interconnection Order* did not foreclose future Section 201 interconnection requests.

32. Instead, a case-by-case determination of interconnection requests such as that brought by Neutral Tandem is required by the Act: The small portion of the order upon which Verizon relies only states that the Commission did not believe that mandatory interconnection was appropriate "at this time." In fact, the *CMRS Interconnection Order* specifically contemplates mandating such interconnection should circumstances change. Further, § 332(c)(1)(A) of the Act supports this interpretation by prohibiting the Commission from exempting CMRS carriers from any part of § 201.

33. Verizon Wireless claims that *Cellnet Communications v. New Par*[56] held that CMRS providers have no interconnection obligations. However, like the *CMRS Interconnection Order*, *Cellnet* involved a dispute between a CMRS provider and a reseller, as well as a request for two-way interconnection, in contrast to Neutral Tandem's Petition which only seeks one-way termination to Verizon Wireless switches. "The complainants, *resellers of cellular services*, argue that New Par and Comcast denied requests to enter into an agreement providing physical interconnection to the mobile telephone switching office (MTSO) for purposes of handling calls *to and from* the complainants' customers."[57] Neutral Tandem does not seek to resell any Verizon Wireless service, nor to compel two-way interconnection, so *Cellnet* is simply inapposite.

34. Similarly, Verizon Wireless argues that parties in *Cellexis International v. Bell Atlantic NYNEX Mobile Systems*[58] agreed that the *CMRS Interconnection Order* disposed of Section 201, 251 and 332 claims under the Act. *Cellexis* also involved an interconnection dispute between a CMRS provider and a CMRS

[55] *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Memorandum Opinion and Order on Reconsideration, 16 FCC Rcd. 10009 (2001) ("*CMRS Order on Reconsideration*") (emphasis added).

[56] *Cellnet Communications, Inc. v. New Par, Inc.*, Order, 15 FCC Rcd. 13814 (2000) ("Cellnet").

[57] *Cellnet* at 13815 ¶ 2 (emphasis added).

[58] *Cellexis International, Inc. v. Bell Atlantic NYNEX Mobile Systems, Inc.*, Memorandum Opinion and Order, 16 FCC Rcd. 22887 (2001) ("*Cellexis*").

reseller, and is wholly inapplicable here. "In short, the complaint alleges that Defendants violated [the Act] by refusing to continue to interconnect their cellular networks with Cellexis's switch *so that Cellexis could provide resale cellular service*."[59] Further, the order issued in *Cellexis* did not reach the merits of the Section 201 claims by that company, but instead was solely focused on Cellexis' Section 202 claim. "At this juncture, Cellexis's *only remaining claim* is for violation of section 202(a) of the Act."[60]

35. The *CMRS Interconnection Order* could not have stripped Verizon Wireless of its statutory interconnection duties set forth by Congress, nor did the Commission ever purport to do so. While the Commission may not have established a mandatory direct connection obligation on all CMRS carriers with respect to CMRS resellers, this is not the same as finding that no individual CMRS carrier can ever be subject to an interconnection request from any other carrier. The Commission expressly reserved the authority to make case-by-case determinations to resolve interconnection disputes such as this one, and Verizon Wireless' objections to this procedure are baseless.

C. Neutral Tandem's Petition is Not Inconsistent with Section 251

36. Some wireless commenters appear to believe that their interconnection duties begin and end in Section 251 of the Act.[61] That is clearly incorrect, because Section 251(i) expressly provides otherwise—"Nothing in this section shall be construed to *limit or otherwise affect* the Commission's authority under section 201." 47 U.S.C. § 251(i). Decisions establishing the scope of *mandatory* interconnection duties under Section 251, therefore, do not limit the Commission's exercise of its *public interest* interconnection power under Section 201.

37. As noted above, the Commission has informed CMRS carriers that it will require interconnection when the public interest demands it. "[W]e remind all CMRS providers from whom interconnection is sought, that they are common carriers subject to the basic commands of Sections 201 and 202 of the

59 *Cellexis*, at 22887, ¶ 1 (emphasis added).

60 *Cellexis*, at 22887-88, ¶¶ 1-2 (emphasis added).

61 *See, e.g.,* CTIA at 2-3; Rural Cellular Association at 5-9.

Communications Act."[62] Those commands include Section 201(a), which allows the Commission to require interconnection—when supported by a public interest finding—beyond the bare minimum mandated by Section 251. Thus, the fact that a CMRS carrier may satisfy its Section 251 duties simply by indirectly interconnecting via an ILEC tandem does not establish whether it the public interest requires physical connections under Section 201.

38. Further, the Commission should acknowledge that at least one commenter[63] specifically contends that the issues raised in the Petition inherently concern the Section 251(a)(1) requirement that all telecommunications carriers are required to "interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers."[64] In the *Local Competition Order*, the Commission held that the interconnection requirement in Section 251(a)(1) "is central to the 1996 Act and achieves important policy objectives."[65] Accordingly, the Commission declined to limit the application of § 251(a)(1) to dominant carriers only.[66] Thus, under Section 251(a)(1), *all* telecommunications carriers have a clear obligation to interconnect directly or indirectly with other telecommunications carriers.[67]

62 *CMRS NPRM,* 10 FCC Rcd. at 10685, ¶ 38.

63 *See generally* AT&T Reply Comments.

64 47 U.S.C. § 251(a)(1).

65 Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd. 15499, CC Docket No. 96-98 ¶ 997 (rel. Aug. 8, 1996)("*Local Competition Order*"). More broadly, the Commission has declared that "universal connectivity is an important policy goal that our rules should continue to promote." Access Charge Reform, *Seventh Report and Order and Further Notice of Proposed Rulemaking*, 16 FCC Rcd. 9923, CC Docket No. 96-262 ¶ 93 (rel. April 27, 2001). With respect specifically to interconnection with intermediate carriers such as transit providers, the Commission also has declared that transit service is critical to the ability of carriers to interconnect indirectly. *See generally Virginia Arbitration Order*; *see* also Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Report and Order and Order on Remand and Further Notice of Rulemaking, 18 FCC Rcd. 16,978, ¶ 534 n. 1640 (rel. Aug. 21, 2003).

66 *See Local Competition Order*,¶ 997.

67 The United States Cellular Corporation complains that "forcing unwilling parties to do business with each other is bad idea," United States Cellular Corporation Comments, at 4. However, the Commission should find that the Act

D. The Petition is Not Appropriate for Consideration in the Intercarrier Compensation Proceeding

39. Verizon Wireless and other wireless commenters argue that this matter be considered in the Commission's Intercarrier Compensation proceeding ("ICC").[68] The ICC docket is primarily concerned with compensation arrangements between carriers that actually have interconnection arrangements, not the need for physical interconnection between unconnected carriers. Neutral Tandem is not selling Verizon Wireless any services, so no compensation is at issue.[69] As such, the ICC docket is an in inappropriate forum for addressing the issues raised in this proceeding. Further, compensation-related topics, such as "phantom traffic," is not currently an issue between Neutral Tandem and Verizon Wireless. Verizon Wireless itself has acknowledges the "fact-specific" nature of Neutral Tandem's Petition,[70] which would be particularly ill-suited for resolution in a rulemaking proceeding aimed at the entire telecommunications industry.

E. The Policy of "Market-Based Regulation" of CMRS Is Irrelevant in this Context

40. Verizon Wireless argues that mandatory interconnection is unnecessary for non-dominant carriers, and that Commission policy favors free operation of market forces in lieu of regulation in the wireless industry.[71] Although these slogans might have some weight in other contexts, they ignore the specific circumstances that make Commission intervention necessary here. The Commission has previously recognized that regulation of inter-carrier interconnection may be necessary even in markets that are "vibrantly competitive" at the end-user level, due to the effective bottleneck carriers enjoy over termination to

does not allow any telecommunications carrier to choose to interconnect with some telecommunications carriers but not others.

[68] *See, e.g.,* Verizon Wireless Comments, at 8; CTIA Comments, at 8-9.

[69] *See* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1-2 (filed March 16, 2007).

[70] *See* Verizon Wireless Comments, at 9-10.

[71] *See* Verizon Wireless Comments, at 11-20.

their end users. Where a carrier abuses that bottleneck through refusals to interconnect, as Verizon Wireless has done here, regulatory intervention is necessary.[72]

41. The Commission has previously characterized terminating access services for competitive carriers as a bottleneck, and regulated the terms on which even *non-dominant* carriers—in markets that are otherwise "vigorously competitive"—offer such termination services. "Sprint and AT&T persuasively characterize both the terminating and the originating access markets as consisting of a series of bottleneck monopolies over access to each individual end user. Thus, once an end user decides to take service from a particular LEC, that LEC controls an essential component of the system that provides interexchange calls, and it becomes the bottleneck for IXCs wishing to complete calls to, or carry calls from, that end user."[73] The same is equally true of CMRS providers, as the Commission implicitly recognized in the *T-Mobile Declaratory Ruling* by requiring those providers to submit to binding arbitration with ILECs.[74]

F. Other Matters

42. The Commission should stress that its decision in this proceeding is based on the specific facts established in the record, including the nature of the facilities operated services provided by Neutral Tandem and Verizon Wireless, respectively, the volumes of traffic likely to be exchanged between the carriers, and

[72] *See* Integra Comments, at 1 ("The independent alternative provided by Neutral Tandem allows competitors to bypass bottleneck tandem facilities and deliver traffic in a more efficient and cost effective manner, in this case to one of the country's largest wireless providers."). "The requested interconnection would provide a competitive alternative to the incumbent LECs' historic stranglehold on tandem services for delivering traffic to one of the largest wireless providers in the United States." *Id.,* at 2-3. *See also* McLeodUSA Comments, at 2-3, 5. *See also* AT&T Reply Comments, at 5-6 (noting the Act contains no provisions absolving carriers from their obligation to interconnect because they are non-dominant).

[73] *Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, Seventh Report and Order and Notice of Proposed Rulemaking, 16 FCC Rcd. 9923, 9935, ¶ 30 (2001) (internal citations omitted) ("*Seventh Report*"). *See also* COMPTEL Comments, at 4.

[74] *See Developing a Unified Intercarrier Compensation Regime, T-Mobile et al. Petition for Declaratory Ruling Regarding Incumbent LEC Wireless Termination Tariffs*, Declaratory Ruling and Report and Order, CC Docket No. 01-92 (rel. Feb. 24, 2005) ("*T-Mobile Declaratory Ruling*").

the fact-specific public interest benefits demonstrated by Neutral Tandem.[75] Nothing in the Order resolving this proceeding should be interpreted as establishing a rule of general applicability; rather, any future requests for direct connection under Section 201(a) should be decided on a case-by-case basis in light of the fact-specific nature of the public interest findings required under that section.

43. The Commission should also stress that Neutral Tandem has requested only that Verizon Wireless be required to accept direct connections for termination of local and switched access traffic delivered to Neutral Tandem by third-party carriers utilizing Neutral Tandem's tandem services. Nothing in the Commission's order should be interpreted as creating any obligation for Verizon Wireless to use Neutral Tandem's services for traffic originating on its network. Rather, the Commission's order should be designed to effectuate the ability of each originating carrier to decide which, if any, tandem provider to use to deliver traffic for which it bears financial responsibility.[76]

[75] Verizon Wireless infers that Neutral Tandem's Petition should be rejected based on the fact that Neutral Tandem has sought prior Commission review of some of the issues underlying the dispute between the companies. The Commission should stress, however, that it has never ruled on the merits of the dispute between the two companies. *See* Verizon Wireless Comments, at 3 (noting that the companies originally settled their dispute without mediation by the FCC's Enforcement Bureau). On December 6, 2005, the Enforcement Bureau declined Neutral Tandem's second request for Accelerated Docket status, as it has discretion to do under 47 CFR § 1.730(e), without considering the merits (indeed, it could not have ruled on the merits, since no formal complaint was ever filed). Rather, the Enforcement Bureau informally suggested that Neutral Tandem file a petition under Section 201 to secure the requested interconnection. In sum, the Commission never reached the merits of Neutral Tandem's first or second request for mediation. *See* Neutral Tandem Reply Comments, at 15-16.

[76] While Verizon Wireless argues that ordering direct connections will impose costs on the company (*see* Verizon Wireless Comments, at 24), the Commission believes that such fears are unripe, and unlikely to be realized. First, Neutral Tandem does not seek to determine the terms of its interconnection through the Petition, but only an order requiring Verizon Wireless to interconnect in the first place. Second, negotiation between the companies over the terms of the interconnection may resolve Verizon Wireless' fears, and Neutral Tandem has publicly stated that it would be responsible for all the transport to the Verizon Wireless switch sites--that there would be no out-of-pocket costs to Verizon Wireless; that the engineering requirements for such terminating trunking are minimal; and to the extent that the trunking would reduce the Verizon Wireless-bound traffic transited through the Verizon or other LEC tandems, it would reduce Verizon Wireless' interconnection traffic costs. Third, the Commission retains the authority to arbitrate the terms of the interconnection agreement should the companies be unable to reach an agreement. Fourth, while Verizon Wireless

44. In interconnection disputes involving dominant carriers, the Commission typically has exercised its jurisdiction not only to compel connections, but also to prescribe the terms and conditions, including rates, on which interconnection will be provided.[77] Because neither Verizon Wireless nor Neutral Tandem is a dominant carrier, however, the Commission may prefer to allow the parties to negotiate in the first instance to reach mutually agreeable terms for the direct connections at issue here. If those negotiations result in an impasse, however, there must be some fallback method of resolving the dispute so that the public interest benefits outlined above can be realized.[78]

45. Here, a useful benchmark for determining reasonable terms and conditions exists because Verizon Wireless has already established direct connections with at least one provider of tandem switching services in each market it serves; that is, the incumbent LEC in that market. That being said, the terms governing the interconnection agreement between Verizon Wireless and Neutral Tandem must be just, reasonable, and non-discriminatory. Therefore, the Commission should find that, absent mutual agreement to the contrary, it will assume that it will be just and reasonable for Verizon Wireless to permit direct connections by Neutral Tandem on terms and conditions comparable to those existing between Verizon Wireless and the incumbent LEC in each market. If the parties are unable to reach a commercially acceptable agreement within 30 days after the release date of the Commission's order, either party should have the ability to request that the Chief of the Wireline Competition Bureau resolve their dispute. Within 10 days after filing of such a request, each party should submit its proposed interconnection terms and conditions to the Chief of the Wireline Competition Bureau, who should be authorized to adopt whichever set of proposed terms he finds is most consistent with the principle that interconnection terms between Verizon Wireless and Neutral Tandem should be no less favorable than those currently existing between Verizon Wireless and incumbent LECs.

believes that it may have lost opportunity costs through its requirement to interconnect with Neutral Tandem due to the loss of available switch ports, the Commission should find that the same number of ports will be required to serve Verizon Wireless' traffic if the traffic is terminated through Neutral Tandem or ILEC tandems. Providing new port capacity to Neutral Tandem will not increase the net demand on Verizon Wireless switches so long as Neutral Tandem utilizes these ports efficiently (as the traffic threshold Neutral Tandem proposes would require it to do).

[77] See cases cited in note 2, above.

[78] *See, e.g.,* Letter from Russell M. Blau, Bingham McCutchen, LLP to Marlene H. Dortch, Secretary, FCC, WC Docket No. 06-159, at 1-2 (filed Sept. 6, 2006).

Alternatively, the parties may agree to private alternative dispute resolution on terms that are mutually acceptable to them.

II. CONCLUSION

46. Given the network redundancy and homeland security benefits associated with Neutral Tandem's service offerings, the Commission should find that the relief requested in the Petition is in the public interest. The Commission should order Verizon Wireless to permit direct connections by Neutral Tandem, at Neutral Tandem's expense, solely for the termination of traffic by Neutral Tandem and/or its customers to end users served by Verizon Wireless, at any Verizon Wireless switch to which Neutral Tandem (or its customers) has at least three DS1s' worth of traffic. The parties should seek to agree upon mutually acceptable terms and conditions for establishing these direct connections within 30 days of the release of the Commission's Order, and in the event of an impasse the dispute should be resolved as described in paragraph 45 above.